

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 21 APR 2006

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Applicant's or agent's file reference P04009-WO/GTG		FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2005/000979		International filing date (day/month/year) 01.02.2005		Priority date (day/month/year) 03.02.2004
International Patent Classification (IPC) or national classification and IPC INV. B29C37/00 B05B15/12 B05B13/02				
Applicant LINDE AKTIENGESELLSCHAFT et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission-of-the-demand			Date of completion-of-this-report	
07.09.2005			21.04.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016			Authorized officer Barré, V Telephone No. +31 70 340-2987	



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2005/000979

Box No. I Basis of the report

1. With regard to the **language**, this report is based on

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
 - ☐ international search (under Rules 12.3(a) and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4(a))
 - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-11 as originally filed

Claims, Numbers

1-15 as originally filed

Drawings, Sheets

1/4-4/4 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "*superseded*."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2005/000979

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2 12 13
	No: Claims	1 3-11 14 15
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/EP2005/000979

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 (and corresponding method claim 7) is not new in the sense of Article 33(2) PCT for substantially the same reason as enounced in the previous written opinion.

In new claim 1, filed with letter of 04/04/06, "a manufacturing machine" has been specified as "a moulding machine".

In document US5165969, the intended use is coating truck/tractor cabs, parts, and accessories (see in US5165969, col.1, l.10). It is well known for the person skilled in the art that truck/tractor cabs, and especially the smaller parts, and accessories can be moulded.

Therefore, the presence outside the booth of a moulding machine in US5165969 is also considered to be implicit.

The document US5165969 discloses (the references in parentheses applying to this document, see especially fig. 1,2,4 and corresponding passages):

A system for producing and coating an object (e.g. truck/tractor cabs, parts, and accessories), comprising a moulding machine (implicit) and an object treatment device (1), wherein said object treatment device comprises a painting station (11, 21, 31) with means (113, 114) for applying a coating to a surface of said object, at least another station (12, 22, 32, 40) for treating said object and a conveyor (70) which allows to move said object between said stations, characterized in that said object treatment device is located within an enclosure (1) comprising means (13, 23, 33, see also e.g. col.6 ll.44-46) to create a controlled atmosphere within said enclosure (1) and wherein said manufacturing machine is located outside said enclosure (implicit).

The subject-matter of claim 1 is therefore not new.

2. Further objections raised in the previous written opinion remain.

Claims

1. System for producing and coating a moulded object (5, 21), comprising a moulding machine and an object treatment device wherein said object treatment device comprises a painting station (8, 30) with means for applying a coating to a surface of said object, at least another station (9, 10, 11, 12, 31, 32) for treating said object and a conveyor (4, 23) which allows to move said object (5, 21) between said stations (7, 8, 9, 10, 11, 12, 29, 30, 31, 32), characterized in that said object treatment device is located within an enclosure (3, 22) comprising means (24, 25) to create a controlled atmosphere within said enclosure (3, 22) and wherein said moulding machine is located outside said enclosure (3, 22).
2. System according to claim 1, characterized in that said moulding machine is an injection moulding machine, an extrusion moulding machine, a rolling mill, or a metal pouring machine.
3. System according to any of claims 1 to 2, characterized in that said conveyor comprises a conveyor belt (23) or a turnable tool (4).
4. System according to any of claims 1 to 3, characterized in that said means for applying a coating to a surface of said object (21) comprise a movable spray head.
5. System according to any of claims 1 to 4, characterized in that said object treating device further comprises at least one of a UV treatment station (10, 32) with a UV radiation source (14), a milling station (34), a printing station and an assembling station.
6. System according to any of claims 1 to 5, characterized in that said means for applying a coating to a surface of said object comprise a spray gun, preferably a moveable spray gun, a tamper-printer or a transducer.
7. Method for producing and coating a moulded object (5, 21), comprising the steps of
- producing said object (5, 21) in a moulding machine
 - moving said object (5, 21) to an object treating device, which comprises a

painting station (8, 30) and at least an other station (9, 10, 11, 12, 31, 32) for treating said object,

- applying a coating to a surface of said object in said painting station (8, 30)
- moving said object (5, 21) from said painting station (8, 30) to said other station (9, 10, 11, 12, 31, 32)

characterized in that

said object treating device is located within an enclosure (3, 22) and that said object (5, 21) is coated and treated in a controlled atmosphere and that said moulding step is performed outside said enclosure (3, 22).

8. Method according to claim 7 characterized in that said object is produced by injection moulding, extrusion moulding, rolling mill or by metal pouring.

9. Method according to any of claims 7 or 8 characterized in that said coated object (5, 21) is UV treated in an inert gas atmosphere, preferably in a nitrogen and/or carbon dioxide atmosphere.

10. Method according to any of claims 7 to 9 characterized in that said object (5, 21) is coated and treated in an atmosphere with a total dust content of less than 1000 particles above 0,5 micron per cubic foot, preferable less than 150 particles per cubic foot.

11. Method according to any of claims 7 to 10 characterized in that at least one of said steps of coating and treating said object is performed in an atmosphere having a low and controlled oxygen content, preferably less than 500 ppm, more preferred less than 100 ppm.

12. Method according to any of claims 7 to 11 characterized in that said object (5) is provided with a mask prior to said coating step.

13. Method according to any of claims 7 to 12 characterized in that in said coating step lacquer or paint is atomized with an inert gas (16) and sprayed to said object (5, 21).

14. Method according to any of claims 7 to 13 characterized in that said object (5, 21) is moved from said painting station (8, 30) to said other station (9, 10, 11, 12, 31, 32) by a conveyor, preferably by a conveyor belt (23) or a turnable tool (4).
- 5 15. Method according to any of claims 7 to 14 characterized in that objects (5, 21) with different geometrical shape are moved from said painting station (8, 30) to said other station (9, 10, 11, 12, 31, 32).